

AMENDMENTS TO THE CLAIMS

This listing of the claims replaces all prior versions, and listings of the claims in the application:

Claims 1-5. (Cancelled).

6. (Currently Amended) ~~The method as set forth in claim 1, further comprising:~~
A method of adjusting a volume of a fluid supplied to a patient, the method comprising the steps of:

(a) supplying a plurality of volumes of fluid to a patient during a like plurality of inspiratory phases of a respiratory cycle of such a patient, each volume of fluid being supplied at an inspiratory positive airway pressure during a corresponding inspiratory phase;

(b) determining, for each inspiratory phase, a tidal volume of fluid received by such a patient;

(c) determining an average tidal volume of fluid received by such a patient from the volumes of fluid received by such a patient during the plurality of inspiratory phases, wherein the average tidal volume is determined irrespective of a period of time during which the plurality of inspiratory phases occur;

(d) comparing the average tidal volume to a predetermined target tidal volume;

(e) adjusting the inspiratory positive airway pressure based on the comparison;

(f) comparing a current inspiratory positive airway pressure to a maximum inspiratory positive airway pressure and a minimum inspiratory positive airway pressure; and

(g) preventing adjusting of the inspiratory positive airway pressure in step (e) if one of (1) the current inspiratory positive airway pressure is greater than the maximum inspiratory positive airway pressure and (2) the current inspiratory positive airway pressure is less than the minimum inspiratory positive airway pressure.

Claims 7-12. (Cancelled).

13. (Currently Amended) An apparatus for supplying fluid to a patient, the apparatus comprising:

a pressure generating system adapted to provide a flow of fluid at one of a variable pressure and a variable flow;

a patient circuit operatively coupled to the pressure generating system to deliver the flow of fluid to a patient;

an interface device operatively coupled to the patient circuit to communicate the flow of fluid to an airway of a patient;

at least one sensor operatively coupled to one of the pressure generating system, the patient circuit, and the interface device to detect a parameter indicative of a volume of fluid delivered to such a patient; and

a controller operatively coupled to the sensor and the pressure generating system, wherein the controller:

(a) determines, for each inspiratory phase of a respiratory cycle of such a patient, a tidal volume of fluid received by such a patient based on the parameter indicative of a volume of fluid delivered to such a patient provided by the sensor;

(b) determines an average tidal volume of fluid received by such a patient over a plurality of inspiratory phases, wherein the average tidal volume is determined irrespective of a period of time during which the plurality of inspiratory phases occur;

(c) compares the average tidal volume of fluid received by such a patient to a predetermined target tidal volume; and

(d) causes the pressure generating system to adjust ~~one a pressure and~~ a rate of flow of fluid output thereby, or both based on the comparison; and

(e) prevents adjusting of the pressure or the rate of flow of fluid output by the pressure generating system if (1) the current pressure is greater than a predetermined maximum pressure or (2) the current pressure is less than a predetermined minimum pressure.

Claims 14-18. (Cancelled).

19. (Currently Amended) An apparatus for supplying fluid to a patient, the apparatus comprising:

pressure generating means for providing a flow of fluid at one of a variable pressure and a variable flow rate;
delivering means for delivering the flow of fluid to a patient;
interfacing means for communicating the flow of fluid to an airway of a patient;
sensing means for sensing a parameter indicative of a volume of fluid delivered to such a patient; and
processing means for:

- (a) determining, for each inspiratory phase of a respiratory cycle of such a patient, a tidal volume of fluid received by such a patient based on the parameter indicative of a volume of fluid delivered to such a patient provided by the sensing means;
- (b) determining an average tidal volume of fluid received by such a patient over a plurality of inspiratory phases, wherein the average tidal volume is determined irrespective of a period of time during which the plurality of inspiratory phases occur;
- (c) comparing the average tidal volume of fluid received by such a patient to a predetermined target tidal volume; and
- (d) causing the pressure generating means to adjust ~~at least one of a~~ pressure, ~~and a rate of flow of fluid output thereby, or both~~ based on the comparison; and
- (e) preventing adjusting of the pressure or the rate of flow of fluid output by the pressure generating system if (1) the current pressure is greater than a predetermined maximum pressure or (2) the current pressure is less than a predetermined minimum pressure.

Claims 20-22. (Cancelled).

23. (Currently Amended) An apparatus for adjusting a volume of a fluid supplied to a patient, the apparatus comprising:

supplying means for supplying a plurality of volumes of fluid to a patient during a like plurality of inhalations by such a patient, with each volume of fluid supplied at an inspiratory positive airway pressure during a corresponding inspiratory phase;

tidal volume determining means for determining, for each inspiratory phase, a tidal volume of fluid received by such a patient;

average tidal volume determining means for determining an average tidal volume of fluid received by such a patient from the tidal volumes of fluid received by such a patient during the plurality of inspiratory phases, wherein the average tidal volume is determined irrespective of a period of time during which the plurality of inspiratory phases occur;

comparing means for comparing the average tidal volume to a predetermined target tidal volume; and

adjusting means for adjusting the inspiratory positive airway pressure based on the comparison;

comparing means for comparing a current inspiratory positive airway pressure to a maximum inspiratory positive airway pressure and a minimum inspiratory positive airway pressure; and

preventing means for preventing adjusting of the inspiratory positive airway pressure if (1) the current inspiratory positive airway pressure is greater than the maximum inspiratory positive airway pressure or (2) the current inspiratory positive airway pressure is less than the minimum inspiratory positive airway pressure.

Claims 24-26. (Cancelled).

27. (Previously Presented) An apparatus for supplying a desired volume of a fluid to a patient, the apparatus comprising:

supplying means for supplying a first volume of fluid to a patient at a first inspiratory positive airway pressure;

determining means for determining, for the first volume of fluid supplied to such a patient, a first tidal volume of fluid received by such a patient, wherein the supplying means supplies a second volume of fluid to such a patient at the first inspiratory positive airway pressure, and wherein the determining means determines, for the second volume of fluid supplied to such a patient, a second tidal volume of fluid received by such a patient;

averaging means for determining, based on the first and the second tidal volumes of fluid received by such a patient, a first average tidal volume of fluid received by such a patient, wherein the first average tidal volume is determined irrespective of a period of time during which the plurality of inspiratory phases occur;

comparing means for comparing the first average tidal volume to a predetermined target tidal volume; and

adjusting means for adjusting the first inspiratory positive airway pressure to a second inspiratory positive airway pressure based on the comparison of the first average volume to the predetermined target volume;

comparing means for comparing a current inspiratory positive airway pressure to a maximum inspiratory positive airway pressure and a minimum inspiratory positive airway pressure; and

preventing means for preventing adjusting of the inspiratory positive airway pressure if (1) the current inspiratory positive airway pressure is greater than the maximum inspiratory positive airway pressure or (2) the current inspiratory positive airway pressure is less than the minimum inspiratory positive airway pressure.

Claims 28-32. (Cancelled).